



*City and County of Canterbury.*

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# Annual Report

OF THE

# Medical Officer of Health

AND THE

# Sanitary Inspector

For the Year 1913.

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Canterbury :

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# CITY AND COUNTY OF CANTERBURY.

## ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH For the Year 1913.

MR. MAYOR, ALDERMEN AND COUNCILLORS,

I have the honour of presenting to you my 37th Annual Report of the health and sanitary condition of the Borough, for the past year.

**Births.**—The gross number of births registered during the year 1913 was 468, 256 males, 212 females. There were 7 male and 2 female inward transfers, making the total net number of births 477, 263 males and 214 females. There was a decrease of 40 births over last year, an increase of 16 over 1911, a decrease of 45 over 1910, and an increase of 24 over 1908.

**Birth-rate.**—The net birth-rate for 1913 was 19.5; last year it was 21.02; 1911, 18.7.

The Birth-rate for England and Wales for 1913 was 23.9.

**Deaths.**—The gross number of deaths registered was 382, 187 males, 195 females. The net number of deaths was 347, an increase of 56 deaths over last year, of 14 over 1911, stationary in 1910, increase of 38 over 1909, decrease of 59 over 1908.

**Death-rate.**—The gross death-rate for the past year of the estimated population to the middle of 1913, viz., 24,561, was 15.05. Excluding 44 outward transfers of non-residents dying in public institutions, and including 7 inward transfers of residents dying outside the City, the net death-rate for the City is 14.1 per 1,000.

The death-rate for England and Wales in 1913 was 13.4.

The Census for 1911 for 24,624.

The excess of births over deaths was 86.

There were 62 deaths registered under 1 year of age; 17 deaths of 1 and under 2 years of age; 40 deaths of 2 and under 4 years of age; 15 deaths of 5 and under 15 years of age; 14 deaths of 15 and under 25 years of age; 45 deaths of 25 and under 45 years of age; 73 deaths of 45 and under 65 years of age; and 149 deaths of 65 years of age and upwards, making a total of 382.

TABLE I.

## Vital Statistics of Whole District during 1913 and previous Years.

Year.	Population estimated to middle of each year	Births.		Total Deaths registered in the District.		Transferable Deaths.		Deaths belonging to the District.		Nett Deaths at all ages.		
		Un- corrected Number	Nett.	Number.	Rate.	Number.	Rate.	of Non- Residents not registered in the District.	Number.	Rate per 1,000 Nett Births	Number.	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	26,479	592	...	22.4	439	15.8	...	...	69	...	399	15
1909	26,653	582	...	21.8	342	12.8	34	...	45	...	308	11.8
1910	26,881	533	...	19.1	380	14.1	44	...	53	...	336	12.4
1911	24,621	462	...	19.4	366	14.1	16	11	52	87.4	320	12.9
1912	24,590	508	...	21.02	321	13.1	49	16	38	74.8	291	11.8
1913	24,561	468	...	19.05	382	15.05	44	71	62	76.9	347	4.

Area of District in acres (exclusive of area covered by water) 3,976

Total population at all ages, 24,621  
Number of inhabited houses, 5,688  
Average number persons per house, 4.32

At Census of 1911

TABLE III.  
Causes of, and Ages at Death, during the Year 1913.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.										TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON- RESIDENTS" IN INSTITUTIONS IN THE DISTRICT.
	All Ages	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and up- wards	1	
		2	3	4	5	6	7	8	9	10	
1	1	2	3	4	5	6	7	8	9	10	11
All Causes (Certified (c))	...	...	...	...	...	...	...	...	...	...	...
(Uncertified)	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	1	...	...	...	1	...	...	...	...	...	1
Small-pox	...	...	...	...	...	...	...	...	...	...	...
Measles	2	...	...	1	1	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	1	...	...	...	1	...	...	...	...	...	1
Influenza	4	...	...	...	1	...	1	...	2	...	...
Erysipelas	1	...	...	...	...	...	...	...	1	...	...
Phthisis (Pulmonary Tuberculosis)	30	...	1	3	9	12	4	1	9	...	...
Tuberculosis Meningitis	5	2	1	2	...	...	...	...	...	...	3
Other Tuberculous Diseases	3	2	...	1	...	...	...	...	...	...	2
Cancer, malignant disease	31	...	...	...	...	1	6	15	9	15	...
Rheumatic Fever	...	...	...	...	...	...	...	...	...	...	...
Meningitis	2	...	...	...	1	...	1	...	...	...	4
Organic Heart Disease	37	...	...	...	...	...	1	7	29	12	...
Bronchitis	26	5	1	...	...	...	1	6	13	5	...
Pneumonia (all forms)	31	9	1	4	2	1	4	6	4	8	...
Other diseases of respiratory organs	3	...	...	...	...	...	1	...	2	3	...
Diarrhea and Enteritis	9	7	1	...	...	...	1	...	1	1	...
Appendicitis and Typhlitis	1	...	...	...	...	...	...	...	...	...	4
Cirrhosis of Liver	4	...	...	...	...	...	1	2	1	...	...
Alcoholism	...	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease	6	...	...	...	...	...	2	3	1	...	...
Puerperal Fever	...	...	...	...	...	...	2	3	1	...	...
Other accidents and diseases of Pregnancy and Parturition	1	...	...	...	...	...	1	...	...	...	...
Congenital Debility and Malformation, including Premature Birth	9	9	...	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide	20	20	...	...	...	...	...	...	...	...	2
Suicide	7	2	1	...	...	...	1	2	1	7	...
Other Defined Diseases	1	...	...	...	...	...	1	...	...	...	...
Senile Decay	65	4	1	...	1	1	8	17	33	...	...
Diseases ill-defined or unknown	44	...	...	...	...	...	...	...	44	30	...
	347	62	6	9	11	12	41	63	142	107	...

## TUBERCULOSIS.

Prevalence of and control over tuberculosis under the Public Health Tuberculosis Regulations, 1912. Summary of notifications during the period from 1st February, 1913, to the end of the week ending on the 3rd January, 1914:—

Number of Cases notified on Form A

The number of cases notified by the medical practitioners during the year 1913 was 58 (9 of which were imported), 39 pulmonary, viz.: 23 males and 16 females; 19 non-pulmonary (1 of which was imported); 8 males, 11 females. Of the 23 pulmonary males, 16 were insured, of which 5 out of the 7 uninsured died. Of the 16 pulmonary females, 4 were insured and 12 not. Of the insured, one died; of the uninsured, 6 died. Of the 8 non-pulmonary males, 1 was imported and 1 was insured. Of the 11 non-pulmonary females, 2 were insured and 4 of the 8 non-pulmonary males died. There were 3 deaths of residents dying out of the City; 2 of these were soldiers stationed at the Barracks for a short time and then sent to Aldershot, where they died. Both were suffering with the disease when they came to Canterbury. 3 non-residents died in public institutions in the City.

Dr. Greenwood, the Medical Officer for the County, has drawn up a scheme for the County, including Canterbury, which the Town Council has adopted subject to the financial basis of the scheme being satisfactory. Under this scheme, a Tuberculosis Dispensary will be established in Canterbury, with a Tuberculosis Medical Officer; a Sanatorium for 100 beds to be built in the County. The Tuberculosis Dispensary will be a centre for diagnosis, a centre for treatment and "after-care," an information bureau, and an educational centre. It will be the pivot of the whole scheme. The necessary complement of a dispensary system is the residential institution, i.e., that is, the sanatorium and the hospital. This forms the second unit of the scheme. The sanatorium is an institution for the treatment and cure of early cases. Advanced and acute cases are treated in hospitals, and beds would be set apart in the hospitals for their treatment, if arrangement could be made with the voluntary hospitals for the supply of beds at 30s. a week for each bed. This would have to be approved by the Local Government Board. Health visitors, a nurse, and charitable work, such as is provided by the Alford Relief Society, will cover the ground which is outside the sphere of a public authority, and it is the sympathetic co-operation of the Alford Relief Society with the State scheme which is so necessary for its completion and ultimate success. Under the National Insurance Act, sanatorium and domiciliary treatment have been carried out with good results. I have visited all houses when cases have been notified, have taken the necessary steps to prevent the spread of infection, and in all cases of death the rooms have been disinfected.

**Pulmonary Tuberculosis** caused 30 deaths, including 3

inward transfers and 1 outward, the same number as last year.

**Tuberculous Meningitis** caused 6 deaths, 1 of which was imported—1 more than last year, 2 more than in 1911.

Other tuberculous diseases caused 4 deaths, 3 less than last year, 9 less than in 1911.

**Cancer Malignant Disease** caused 37 deaths, 6 of which were imported, and 1 resident died of it out of the City—increase 10.

**Rheumatic Fever.**—Nil.

**Meningitis** caused 2 deaths, 1 of 5 and under 15, and 1 between 25 and 45 years of age.

**Organic Heart Disease** caused 43 deaths—increase 9, 8 of which were imported; 1 resident died out of the City with heart disease.

**Bronchitis** caused 27 deaths, 1 of which was imported, 4 more than last year.

**Pneumonia** (all forms) caused 33 deaths, 3 of which were imported—increase 15. 1 inward transfer.

Other diseases of respiratory organs.—4, increase 2.

**Diarrhoea and Enteritis** caused 10 deaths, 1 of which was imported, 6 more than last year.

**Appendicitis and Typhilitis** caused 4 deaths, 3 of which were imported, 3 more than last year.

**Cirrhosis of Liver** caused 4 deaths, 1 of 25 and under 45, 2 of 41 and under 68, and 1 over 65 years of age.

**Alcoholism.**—Nil.

**Nephritis and Bright's Disease** caused 5 deaths and 1 inward transfer, making 6—decrease 2.

**Puerperal Fever.**—Nil.

Other accidents and diseases of pregnancy and parturition caused 1 death of 25 years of age and under 45—increase 1. Congenital debility and malformation 9, premature birth 20—increase 23.

**Violent Deaths**, excluding suicide, caused 11 deaths (decrease 9), 4 of which were imported, and 1 inward transfer.

**Suicide** caused 1 death of 25 years of age and under 45—decrease 5.

Other defined diseases 77. There were 11 outward transfers and 1 inward.

**Diseases** ill-defined or unknown, 3, increase 1.

From **Senile Decay** 44 deaths were registered, 1 100 years old, 3 between 90 and 100, 20 between 80 and 90, 19 between 70 and 80, and 1 over 60 years of age—increase, 10 deaths.

The increase of 58 deaths over last year was caused chiefly by cancer—increase 10; organic heart disease—increase 9; pneumonia—increase 18; and congenital malformation and premature birth—increase 23.

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### THE MIDWIVES' ACT.

Gentlemen,—During the past year I have visited all the qualified midwives and examined their bags. All were satisfactory. Proceedings were taken against a midwife for practising without proper qualifications, and she was convicted. There are, I believe, several other women in Canterbury committing the same offence, but it is very hard to obtain evidence, especially after the above case. In my opinion, the only remedy is the compulsory notification of births.

H. WACHER.

## INFANTILE MORTALITY.

There were 62 deaths under 1 year of age, an increase of 24 over last year; of 10 over 1911, of 10 over 1910, of 2 over 1909. 16 of this increase were due to deaths from premature birth. The deaths from premature birth are caused largely by ante-natal conditions. The co-operation of midwives with charitable organisations will be required to remedy this by supplying food to necessitous expectant mothers. Pneumonia caused 10 deaths—increase 5. Diarrhoea, enteritis and gastritis caused 7 deaths—increase 5. Syphilis 2—increase 2, 1 imported. Bronchitis 5—decrease 2. Convulsions 2—decrease 4. Suffocation 1—decrease 1. Tuberculous meningitis 2—increase 1. Abdominal tuberculosis 2—increase 1.

The annual infantile mortality was 76.9 to 1,000 births registered. The infantile mortality for England and Wales for 1913 was 109 to 1,000 births registered.

I made enquiries into all cases of deaths under 1 year of age. There is no doubt the abandonment of breast-feeding without adequate cause is a most important factor of excessive infant mortality.

The Notification of Births Act has not been adopted, and should be made compulsory throughout the country. A Health Visitor is much needed to visit the homes of the mothers and give advice.

There are two Mothercraft Clubs, both doing good work for the welfare of young children. In one of these Dr. Shan very kindly gives his services, and attends weekly to advise and instruct the mothers as to the details of feeding and of general hygiene. Every midwife should receive accurate training in infant hygiene, and her work should be controlled by the Inspectors of Midwives.

TABLE IV.  
INFANT MORTALITY.

1913. Net Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks and under 3 mth.s.	3 months and under 6 mth.s.	6 months and under 9 mth.s.	9 months and under 12 mth.s.	Total Deaths under 1 year.
All causes	{ Certified Uncertified	16 3	6 ...	4 ...	3 ...	29 3	6 ...	8 ...	7 ...	9 ...	62 ...
Small pox	...	...	...	...	...	...	...	...	...	...	...
Chicken pox	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and croup	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...
Tuberculous meningitis	...	...	...	...	...	...	...	1	...	1	2
Abdominal tuberculosis	...	...	...	...	...	...	...	1	...	1	1
Other tuberculous diseases	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not tuberculous)	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	2	...	...	...	2	...	...	...	...	2
Laryngitis	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	1	...	1	2	...	...	2	1	5
Pneumonia (all forms)	...	...	...	1	...	1	1	1	2	5	10
Diarrhoea	...	...	...	...	...	...	...	4	...	...	4
Enteritis	...	...	...	...	...	...	...	2	...	...	2
Gastritis	...	...	...	...	...	...	1	...	...	...	1
Syphilis	...	...	1	...	...	1	1	...	...	...	2
Rickets	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	1	1	...	...	...	...	1
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	...	...	...	...	...	1	1
Congenital malformations	2	...	...	...	...	2	1	2	...	1	6
Premature birth	...	12	5	3	...	20	...	...	...	...	20
Atrophy, debility and Marasmus	...	1	...	...	...	1	2	...	...	...	3
Other causes	...	1	...	...	1	2	...	...	...	...	2
TOTALS	...	...	19	6	4	3	32	6	8	7	9
Net Births in the year	...	...	...	...	...	...	...	...	...	...	...
Net Deaths in the year of	...	...	...	...	...	...	...	...	...	...	...

Net Births in the year ... { legitimate, 440.  
illegitimate 30.

Net Deaths in the year of ... { legitimate infants, 55.  
illegitimate infants, 4.

## INFECTIOUS DISEASES.

The number of cases notified during the year 1913 was 132, viz. : diphtheria 39—decrease 56; scarlet fever 63—increase 15; enteric fever 16—increase 12; erysipelas 14—decrease 7; total decrease, 36. Measles complicated with croup, 1 imported from Ash.

**Zymotic Death-rate.** — The number of deaths notified from the 7 zymotic diseases was 14—decrease 1, viz. : 1 from diphtheria, 2 from measles, 1 from erysipelas, 1 from enteric fever, 8 from diarrhoea and enteritis. The zymotic death-rate is 0.57 per 1,000.

## THE SANATORIUM.

During the year 1913 115 cases were admitted into the Sanatorium, viz. : scarlet fever 63, diphtheria 38, enteric fever 10, German measles 1, and 1 case of tonsilitis. There was 1 death from diphtheria and 1 from enteric fever in the Sanatorium.

## ENTERIC FEVER.

There were 16 cases notified, with 1 death. Out of these, 9 cases occurred in New Ruttington Lane (5 in one family) and the other 4 were connected with these cases. On making enquiries, we found these people were away currant and pea picking just previous. One in Artillery Street, 1 in Hospital, Longport; 1 in Martyrs' Field Road, 2 in Military Road, and 1 in St. Peter's Place connected with the outbreak in New Ruttington Lane. With the exception of one house, the drains were found defective in each of the premises.

TABLE II.

## Cases of Infectious Disease notified during the Year 1913.

NOTIFIABLE DISEASES	At All Ages.	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL	
		At Ages—Years.									
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and up- wards.			
Small pox	...	...	...	...	...	...	...	...	...	...	
Cholera	...	...	...	...	...	...	...	...	...	...	
Diphtheria (including Membranous croup)	39	...	2	24	4	8	1	...	38		
Erysipelas	14	...	...	...	1	8	3	2	...		
Scarlet fever	63	...	12	39	9	3	...	...	63		
Typhus fever	...	...	...	...	...	...	...	...	...		
Enteric fever	16	...	2	8	4	2	...	...	10		
Relapsing fever	...	...	...	...	...	...	...	...	...		
Continued fever	...	...	...	...	...	...	...	...	...		
Puerperal fever	...	...	...	...	...	...	...	...	...		
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...		
Poliomyelitis	...	...	...	...	...	...	...	...	...		
Pulmonary Tuberculosis	39	...	...	2	12	18	7	...	...		
Other forms of Tuberculosis	19	3	4	6	4	2	...	...	...		
<b>Totals</b>	<b>...</b>	<b>190</b>	<b>3</b>	<b>20</b>	<b>79</b>	<b>34</b>	<b>41</b>	<b>11</b>	<b>2</b>	<b>111</b>	

Isolation Hospital or Hospitals, Sanatoria, &c.: Canterbury Sanatorium within the District about one mile from Canterbury. Town Council.

## DIARRHŒA AND ENTERITIS.

Four out of 8 deaths occurred in one house and kept by a midwife and licensed under the Infant Life Protection Act. I am glad to say, on my initiative, the license has been taken away. Two out of these 4 deaths were illegitimate children taken by the midwife, and 2 of which were twins, which were handed over by their mother to the midwife to take care of while she went back to work: a most unmotherly proceeding. In the summer special attention was directed to the cleanliness of the streets and yards, and to foodstuffs, and every effort was made to deal with insanitary conditions. This all helps to prevent diarrhoea and other illness.

## SCARLET FEVER.

There were 63 cases notified, an increase of 15. All these cases were treated in the Sanatorium with not a single death. One case was imported. Table B in the Inspector's report will give the streets in which these cases occurred.

**Diphtheria.**—There were 39 cases notified, a decrease of 56, with one death. During the year especial attention has been paid to the drainage, which has proved defective in a large number of the houses infected. Table B in the Inspector's report gives the streets in which these cases occurred.

**Measles.**—There was an epidemic of this disease in January, and it gradually died out. There were 2 deaths from this disease, 1 being complicated with croup.

## THE FACTORY AND WORKSHOPS ACT.

In compliance with Section 131 of the Act, the Local Authority is compelled to keep a register of the workshops situate within their district. A new register is being filled up with the results of each inspection.

A reference to the following tables will show that 287 inspections have been made by your Inspectors. This en-

tails a large amount of clerical work. The entry in register he hopes to complete during 1914.

One complaint was received from H.M. Inspector of Factories as to want of proper fire-escapes in a factory situated on the second floor of a building used as an upholsterer's. Four females are employed. I think the Council should adopt bye-laws to deal with such premises. The owner has been requested to provide proper fire escapes. No action has, however, been taken.

The inspection of outworkers' premises has been carried out by Mr. Richardson during the year.

One case of infectious disease was reported in a workshop, the disinfection of which was immediately carried out to the satisfaction of the Medical Officer of Health.

The majority of the owners and occupiers of workshops appear to comply, without compulsion, with the standard of sanitation and cleanliness required. The provision of or sanitation and cleanliness required. The provision of a proper flushing apparatus to each w.c. is desirable in the best interests of the workers in all workshops.

A summons was issued against the owner of a workshop for non-compliance with a Statutory Notice to abate a nuisance. This was withdrawn, the work having been completed before the day fixed for hearing.

The number of factories, workshops and workplaces in the city is 287, made up as follows: Factories 45, workshops (including 52 bakehouses, 3 of them underground) 204, workplaces 38, home workers 40. List of outworkers received half-yearly (February and August) 40, the number of home-workers being 172. These were therefore placed under inspection, and they have all been visited by the Sanitary Inspector and myself, in some cases twice, and 37 sanitary defects were remedied.

Fifty-two bakehouses have been inspected twice during the year: underground bakehouses comply with all requirements. Slaughter-houses have been regularly inspected and, with one exception, were found in a satisfactory condition.

TABLE VIII.

## HOUSING. Town Planning Act, 1909.

NAME OF STREET.	Number mispecked.	General character of defects found.									
		No. of houses in multi for habitation.	No. of represesta- tions to the Local Authority.	No. of orders closings made.	No. of houses remedied without closings orders.	No. of orders closings orders, remedied.	No. of houses closings orders, determinated.	No. of houses under Sec. 15.	No. of houses detest with under Sec. 15.	No. of houses detest with not under Sec.	No. of houses under Aacts Publ. Health Act.
Fortune's Passage, Stour Street ...	17	17	17	17	...	...	...	...	...	...	...
New Ruttington Lane ...	1	...	...	...	...	...	...	1	...	...	...
Union Street ...	24	...	...	...	11	...	...	20	4	...	...
St. Peter's Lane ...	4	4	4	4	...	...	...	...	...	...	...
Total	46	21	21	21	11	...	...	21	4	...	...

## HOUSING AND TOWN PLANNING ACT, 1909.

The Council have adopted the card filing system for keeping the necessary records.

The inspections under the Act during the year numbered 46, owing to pressure of other work such inspections have to be carried out at intermittent periods. Number of inspections, 46; number of closing orders, 21; number of notices served under Public Health Act, 20; number of demolition orders, nil.

The 3 months have not elapsed since the closing orders were served. Your Inspector is informed the owners of Fortune's Passage are now entirely removing the 17 present houses and erecting 12 new cottages on the site.

Number of houses built during the year, 21. The plans for new houses are submitted to the Roads and Survey Committee for approval, the inspection of new buildings being carried out by the City Surveyor.

The Council has formed an Housing Committee to report to the Council on the number of houses which may be required for the use of the working classes. It was found that there were 36 empty cottages in one week, and the Committee concluded that it was not necessary to embark on a housing scheme at present.

Very little overcrowding is reported; this is attributable to the very low rental of the cottages, most families endeavouring to live separately in a cottage, however small it may be. This is very desirable.

## WATER SUPPLY.

The water supply is derived mostly from the public supply. A sample of this supply is submitted to the Public Analyst each month.

A number of houses in the city are supplied from Abyssinian wells. The supply from these is analysed from time to time, and careful observations made as to any organic impurity.

## SCHOOLS.

959 children, including entrants, leavers, and defectives have been examined by myself as school Medical Officer, and the sanitary condition of the schools has been reported upon. After five years of service, and having organised the work, I have resigned, and Mr. B. Rigden has been appointed. My annual school report has been circulated amongst members of the Council and Education Committee. St. Mildred's Girls' School was closed for diphtheria from May 24 to August 9; and St. Mildred's Girls' School closed for measles from March 1 to April 11.

I cannot conclude my report without referring to the resignation of Mr. Richardson, your late Sanitary Inspector, who has done such good work for so many years, and whose efficiency was only equalled by his affability, tact and good temper. He has been of the greatest assistance to me in my work, and I warmly thank him for it. He carries into his retirement the good wishes of all the members and officers of the Council. Mr. Jeffery has been appointed to succeed him, and with every qualification for the post, including a certificate as a qualified Meat Inspector. I feel sure that he will maintain the high standard of his predecessor.

I have the honour to remain,  
 Mr. Mayor and Gentlemen,  
 Your obedient servant,  
 FRANK WACHER,  
 Medical Officer of Health.

CASTLEDEN LODGE,  
*February 23, 1913.*

**ANNUAL REPORT of the PUBLIC ANALYSTS**  
**For the City and County of Canterbury.**

**212 SAMPLES ANALYSED DURING 1913.**

Under "The Food and Drugs Act."—134 samples as follows:—

Bread	...	...	...	1 samples.
Butter	...	...	25	„
Cheese	...	...	1	„
Cream	...	...	5	„
Lard	...	...	16	„
Margarine	...	...	10	„
Milk	...	...	65	„
Pepper	...	...	3	„
Sausage Meat	...	...	1	„
Spirits	...	...	2	„
Malt Vinegar	...	...	2	„

Of the above, 10 samples were returned as adulterated.

These were all samples of milk. Six contained extraneous water to the extent of 3.9 per cent., 8.2 per cent., 10.8 per cent., 13.9 per cent., 15.5 per cent., and 26.2 per cent. respectively. Four were deficient in fat or cream to the extent of 3.3 per cent., 5.6 per cent., 5.7 per cent. and 14.7 per cent.

The remaining 124 samples were all genuine.

Two of the samples of milk were sold as "separated" milk, and were found to be in accordance with the regulations. In no case was any preservative found to be added to the milk.

Three samples of cream were sold as "Preserved Cream, not containing over 0.5 per cent. of Boric Acid." They all proved to be well within the limit.

All the margarine samples contained boric acid, as did also 15 samples of butter. In most cases the amount used was much smaller than was formerly the case, and in no instance did it exceed 0.5 per cent., the suggested maximum limit.

The sample of sausage meat only contained a trace of boric acid. All the samples under "The Food and Drugs Act" were submitted by the Sanitary Inspector, and none by private purchasers. 7 samples were notified as being taken without the formalities of the Act being complied with.

Water Analysis ... ... 26 samples.

Of these, 2 samples were for the Electricity Works, and were river water under certain conditions; 2 samples were of river water, and were submitted to find out the effect of a trade effluent; 1 sample was examined for the Borough Asylum. Of the remaining 21 samples, all of which were examined as to their fitness for drinking purposes, 12 were from the public supply, and were, as usual, very pure organically, and free from sewage percolation. 5 samples from private sources were satisfactory, 2 were polluted more or less, and 2 others were of doubtful purity, and were recommended to be re-examined after a suitable interval.

Sewage and Sewage Effluents ... 3 samples.

Of these, 2 were from the Irrigation Works, and the other was from Sutton, Surrey, in order to show the nature of the sewage treated there.

Under "The Fertilisers and Feeding Stuffs Act of 1906," 49 samples as follows:—

Fertilisers ...	...	...	48 samples.
Feeding Stuffs ...	...	1	,,

The feeding stuff was satisfactory, 4 samples of fertilisers were below the limits of error of their guarantees, 12 samples were sold either "by unit values" or as "waste materials," without guarantee. The remaining 33 samples were satisfactory, as fulfilling the conditions of their guarantees.

All the samples examined under this Act were submitted by private purchasers, and were informally taken.

HARVEY & HAWKINS.

**R E P O R T   O F**  
**Mr. JEFFERY, C.R.S.I., M.I.S.E., ~~M.S.I.A.~~,**  
**Sanitary Inspector.**

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**SANITARY INSPECTION OF DISTRICT.**

A large number of inspections have been made, especially as to repair of drainage and provision of new w.c. pans and traps. It is satisfactory to find that owners and builders, almost without exception, have adopted the style of w.c. pan that contains a sufficient quantity of water. The Council not having obtained powers to compel owners to provide proper flushing apparatus to w.c. pans, it is found that out of 345 w.c.'s inspected, 189 had no flushing apparatus provided, and I trust the powers will soon be obtained necessary to compel every w.c. to be provided with flushing apparatus. At present, approximately 2,445 are supplied with flushing apparatus and 3,260 not.

The Council having formed a Committee to amend the New Building Bye-Laws, it is to be hoped that such Bye-laws will be made to apply to empower your Inspector to insist on a standard of work in old buildings to ensure the good health of the district.

The present condition of the receptacles for storage of refuse matter is very undesirable. Each house should be provided with a proper movable receptacle, of reasonable size and construction, provided with suitable covers. This, I am sure, with the daily removal now in force, would tend largely to the better health of the inhabitants.

168 preliminary notices have been served, 9 Statutory Notices, and 4 Summons issued for non-compliance with Statutory Notices.

It is gratifying to find the work carried out in so many cases without reporting the several matters to the Council.

## RESULT OF PROSECUTIONS.

1	Public Health Act Sec.	Fined £1, including costs.
2	„ „ „	Withdrawn, work completed.
3	„ „ „	„ „ „
4	„ „ „	„ „ „
4	... ... ... ...	
	1 conviction, 3 withdrawn.	

Return of sanitary work from June 25th to December 31st, 1913:—

No. of Premises Inspected (Public Health Acts)	198
„ „ (Infectious Diseases)	63
„ „ (Factories and Workshops) .....	106
„ „ Dairies, Cowsheds and Milkshops ...	60
„ „ Ice Cream Makers	4
„ „ Bakehouses .....	22
„ „ Slaughterhouses ...	80
„ „ Offensive Trades ...	7
Visits re Sale of Food and Drugs Acts .....	70
„ „ Samples of Water—Public Supply	6
„ „ Private Supply	6
„ „ Sale of Food Stuffs .....	12
No. of Dwelling Houses inspected (Housing and Town Planning Act) .....	42
Re Inspections, calls made, etc. ....	1717
Total Inspection and Calls .....	2393

Preliminary Notices served, 168; No. complied, 127.

Statutory notices served, 14; No. complied, 9.

Complaints received, 54; verbally, 23; in writing, 31.

Letters written, 71.

Particulars.	Drains tested. Water, 34; smoke, 164; chemical, 81.
	Drains found defective. Water, 6; smoke, 67; chemical, 38.
	No. of Closets or W.C.'s, 345; No. of W.C.'s without flushing apparatus, 189.

## IMPROVEMENTS.

Drains.—Reconstructed .....	19
Repaired .....	70
Soil pipe or ventilation pipes repaired or provided .....	18
Gulley or other Traps fixed .....	73
Water Closets or Closets.—	
W.C.'s erected with pan trap and water supply .....	15
Pan and trap provided .....	46
Water supply provided .....	5
Cleansed or pail repaired .....	19
Ventilated .....	5
Cesspools abolished .....	—
Urinals cleansed (2), water supply provided (1) .....	3
Sanitary Dustbins provided .....	—
Yards.—Paving repaired .....	36
,, provided .....	17
Sinks provided .....	3
Water supply provided to dwelling house .....	—
Overcrowding abated .....	1
Other Improvements.—	
Rooms cleansed .....	33
Walls repaired for dampness .....	12
Floors,, or ventilated .....	9
Roof,, .....	4
Guttering,, .....	8
Room Disinfected .....	76
Miscellaneous Improvements .....	98
	—
Total Improvements .....	570
	—
Total Premises Improved ...	186

## FOOD INSPECTION.

The inspection of meat and other foods systematically with the present staff is quite impossible, owing to the large number of slaughter-houses in the city and the different times killing is in progress.

80 visits have been made to the different slaughter-houses by your Inspector, it being necessary on one occasion to seize the carcase of a pig which had been prepared for sale in one of the registered slaughter-houses. A bullock's lungs were surrendered on another occasion; also a piece of bullock's liver unfit for food of man.

TABLE A.

No. of Case	Description of Animal.	Extent of Disease or Affection.	Nature of Disease.	Total.
1	Pig ...	Carcase	Tuberculosis	Seized and destroyed by Magistrates' Order
2	Bull ...	Lungs	Tuberculosis	Lungs destroyed.
3	Bullock	Liver ...	Parasitic ... (Distomo. Hep.)	Part of liver destroyed.

## SLAUGHTER-HOUSES.

The number in use at the end of the year were 7 licensed (1 is a knaeker's yard) and 15 registered slaughter-houses. Several of these have been repaired during the year, the paving and walls being cemented. Your Inspector respectfully suggests the consideration of making new bye-laws for the control of these premises.

It gives me much pleasure to place on record the prime condition of the animals slaughtered, and the excellent quality of the meat prepared for sale.

### **ICE CREAM MAKERS.**

There are only a very small number of hawkers of ice cream.

4 visits have been made to the homes; in one of these the drain was reconstructed, and premises thoroughly cleansed; in the others several sanitary matters have been attended to, while on a number of occasions the utensils have been examined in the street, it being necessary on one inspection to request a new receptacle for washing the utensils: this was provided at very short notice.

### **OFFENSIVE TRADES.**

7 visits have been made to offensive trades premises. In one case a notice was served to provide proper paving to yard and workhouse, also cleanse w.c. pan and provide flushing apparatus. The notice has been complied with.

### **LODGING HOUSES.**

There are four lodging houses in the city, the Council having adopted the sections of the Public Health Amendment Act of 1907 relating to these premises. Notice has been served upon the several occupiers. When such inspection and registration is complete the premises will be greatly improved, especially as to sanitary conveniences and appliances for the personal cleanliness of the lodgers received.

## DAIRIES, COWSHEDS AND MILKSHOPS.

Number on register end of year:—

Cowsheds .....	11
Dairies and Milkshops .....	26
Purveyors .....	11
	—
Total .....	48
	—

60 inspections have been made since June 25th.

The drains have been reconstructed in several of these premises, the attention of the owners or occupiers being called to sanitary defects in others. These, I am pleased to say, in most cases have been remedied. In one case the supply of water is very unsatisfactory, and requires immediate attention. The paving of the cowsheds has been improved during the year. It is very desirable that the condition of the yards should be improved, while animals such as pigs, etc., should be removed from the vicinity of the cowshed yards.

The utensils inspected are of a very good quality, and without exception, scrupulously clean. The cows generally appear in good condition. No case of tuberculosiis of the udder has been reported. A number of the purveyors have cowsheds outside the City boundary. Powers should be obtained to inspect the City's milk supply from all sources.

## INFECTIOUS DISEASES.

The following tables show the number of cases notified, streets in which infected houses were situated, also the number notified attending the public schools of the City during the year 1913.

TABLE A.

Total number of cases notified during 1912 and 1913.

Year.	Scarlet Fever.	Diph-theria.	Typhoid Fever.	Erysipelas.	Totals.
1912 ...	48	95	4	21	168
1913 ...	63	39	16	14	132
Increase ...	15	...	12	...	...
Decrease ...	...	56	—	4	36

TABLE B.—Year 1913.

Name of Street.	Scarlet Fever.	Diph-theria.	Typhoid Fever.	Ery-sipelas.
Artillery Street .....	2	...	1	...
Albert Road .....	...	...	...	1
Abotts Place .....	1	...	...	...
Almonry, Lady Wootton's Green .....	5	...	...	...
Black Griffin Lane .....	...	2	...	...
Blackfriars North .....	1	...	...	...
Claremont Place .....	1	1	...	...
Church Lane, St. Mildred's	3	...	...	...
Cossington Road .....	3	...	...	...
Cross Street .....	1	...	...	...
Duck Lane .....	...	1	...	...
Dover Street .....	1	...	...	...
Elham Valley House .....	...	1	...	...
Gordon Road .....	2	1	...	...
Hollow Lane .....	6	3	...	...
Heaton Road .....	...	2	...	...
Hospital Lane .....	2	...	1	...
Hanover Road .....	1	...	...	...
Ivy Lane .....	...	1	...	...
King Street .....	1	...	...	...
Kirby Lane .....	1	...	...	...

Table B.—*Continued.*

Name of Street.	Scarlet Fever.	Diph-theria.	Typhoid Fever.	Erysipelas.
Longport Street .....	1	...	...	...
Meadow Cottages .....	1	1	...	...
Mill Lane .....	1	1	...	...
Martyrs' Field Road .....	...	1	1	...
Military Road .....	3	...	2	...
New Ruttington Lane .....	1	1	9	2
Northgate Street .....	2	...	...	...
Nunnery Fields .....	1	...	...	...
North Lane .....	1	...	...	...
North Holmes Road .....	1	...	...	...
Newtown Street .....	1	...	...	...
Old Ruttington Lane .....	1	1	...	...
Oakley Villas, Thanington	2	...	...	...
Old Dover Road .....	...	1	...	1
Palace Street .....	...	1	...	...
Rose Lane .....	...	1	...	...
Rosemary Lane .....	...	1	...	...
St. George's Place .....	1	1	...	1
Sturry Road .....	...	1	...	...
Stour Street .....	1	1	...	1
St. Peter's Grove .....	1	1	...	...
St. Peter's Place .....	1	...	1	...
St. Martin's Hill .....	1	...	...	1
St. Stephen's Road .....	...	...	...	1
Seymour Place .....	2	...	...	...
St. Jacob's Place .....	2	...	...	...
St. Augustine's Road .....	1	...	...	...
St. Radigund's Place .....	...	...	...	1
Union Street .....	1	1	...	1
Whitstable Road .....	...	5	...	...
Wincheap Street .....	1	5	...	1
Woodville, Thanington .....	1	...	...	1
Zealand Terrace .....	...	...	...	2
Barraeks .....	2	...	...	...
Borough Asylum .....	1	...	...	...
Canterbury Union .....	...	1	...	...
Kent and Canterbury Hospital .....	...	2	1	...
Sanatorium .....	1	...	...	...

## TABLE C.

Shewing the number of Infectious Diseases notified attending the Public Schools in the City during 1913.

		Scarlet Fever.	Diphtheria.
City Council School .....	12	4	
Simon Langton ,,	2	3	
Payne Smith ,,	1	...	
Holy Cross ,,	2	3	
St. Mary Bredin ,,	1	4	
Diocesan ,,	2	1	
St. Mildred's ,,	9	3	
St. Paul's ,,	6	1	
St. George's ,,	3	1	
St. Dunstan's ,,	1	2	
Wesleyan ,,	...	1	
Roman Catholic ,,	...	...	

Immediately a notification is received, the necessary arrangements are made for removal of the patient for isolation and disinfection of the rooms and bedding.

Your Inspector makes a thorough inspection of the premises for sanitary defects, and other investigations, if possible, to trace the cause of the disease, the drains being tested in each of the premises inspected during the year.

63 cases of Scarlet Fever were reported in 50 different premises; the drains were found defective in 5 houses. 39 cases of Diphtheria in 36 premises, 14 drains defective: 15 cases of Typhoid Fever in 10 premises, in 8 of these houses the drains were found defective.

### SALE OF FOOD AND DRUGS ACTS.

The number of samples submitted to the Public Analysts, Messrs. Harvey and Hawkins, Watling Street, Canterbury, during the year was 134.

Your Inspector desires to place on record his appreciation of the advice and help of Mr. Hawkins in the many difficulties experienced in working the Food and Drugs Acts in a new District.

TABLE I.

Samples obtained.	Number of Samples.	Genuine.	Adulterated.
Milk ... ... ...	65	54	11
Separated Milk ... ...	2	2	...
Butter... ... ...	25	25	...
Margarine ... ... ...	10	9	1
Brandy ... ... ...	2	2	...
Cream... ... ...	5	5	...
Lard ... ... ...	16	16	...
Sausage Meat... ...	1	1	...
Cheese ... ... ...	1	1	...
Malt Vinegar... ...	2	2	...
Pepper ... ... ...	2	2	...
Bread ... ... ...	3	3	...
	134	122	12

TABLE II.

Article.	No.	Adulteration.	Action Taken.
Milk	...	20 5.7% Deficiency of Fat ...	Vendor cautioned by letter from Town Clerk.
Milk	...	64 3.3% " "	" "
Milk	...	85 3.9% of Extraneous Water	" "
Milk	...	88 8.2% " "	" "
Milk	...	89 10.8% " "	" "
Milk	...	91 26.2% " "	Vendor prosecuted—Fined 10s. and 11s. 6d. costs.
Milk	...	97 15.5% " "	Vendor prosecuted—Dismissed on payment of 8s. costs.
Milk	...	99 14.7 Deficiency of Fat ...	Vendor prosecuted—Dismissed on payment of 8s. costs.
Milk	...	123 Contained 2.95% of Fat ...	Vendor informed of deficiency.
Milk	...	124 13.9% of Extraneous Water	Vendor prosecuted—Fined 10s. 6d. costs.
Milk	...	129 5.6% Deficiency of Fat ...	Vendor cautioned by letter from Town Clerk.
Margarine	...	119 0.75 Excess of Water ...	No action taken.

Sample No. 86 of milk was of abnormal quality, containing 9.50 per cent. of fat and 8.24 per cent. of milk solids, the standard being 3 per cent. and 8.50 per cent. respectively.

The Inspector has not received any requests to sample milk direct from the cow. The vendor of Sample No. 129 requested his supply of milk to be analysed, having regard to reported deficiency of fat. This was done, the milk sample No. 130 being sampled at 6.45 a.m., the Analysts' reports shewing 3.02 per cent. of fat.

### SAMPLES OF CREAM.

Five samples of Cream were procured during the year, 4 officially, 1 informal sample.

In 4 samples the amount of Boric Acid was declared as under, 0.5 per cent., the Analyst reports proving this correct.

One sample was procured without declaration, the Analysis shewing sample free from preservatives.

I beg to remain, Gentlemen,  
Your obedient servant,

S. JEFFERY.